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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,243	08/21/2003	Michael Trunz	072261	7542

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HOLLAND & KNIGHT, LLP
ONE EAST BROWARD BLVD.
SUITE 1300
FT LAUDERDALE, FL 33301

EXAMINER

STULTZ, JESSICA T

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/645,243	Applicant(s) TRUNZ ET AL.	
	Examiner Jessica T Stultz	Art Unit 2873	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1103 and 0104</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed November 19, 2003 and January 9, 2004 fail to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. The US documents and relevant non-patent and foreign documents have been considered, however the crossed out foreign references have not been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ebinuma et al.

Regarding claim 1, Ebinuma et al discloses a holding device for an optical element (Sections 55-58, wherein the lenses “1 and 2” are held by alloy members “11” and “21”, respectively, Figure 1), the holding device comprising: at least one member formed of a silicon-containing aluminum material (Sections 56 and 57, wherein the supporting member “11” is made of a ceramic material including alumina and silicon nitride and the supporting member “21” is made of aluminum-silicon-copper, Figure 1).

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Regarding claim 2, Ebinuma et al further discloses that the silicon content of the silicon-containing aluminum material is selected in such a way that the thermal expansion coefficient of the silicon-containing aluminum material is matched to the thermal expansion coefficient of the optical element (Sections 43 and 55-58, wherein the members "11" and "21" have thermal expansion coefficients substantially identical to the lenses "1 and 2", respectively, Figure 1).

Regarding claim 3, Ebinuma et al further discloses that the optical element is a lens (Sections 55-58, wherein the lenses "1 and 2" are held by alloy members "11" and "21", respectively, Figure 1).

Regarding claim 4, Ebinuma et al further discloses that the member comprises at least a portion of a lens mount (Sections 55-58, wherein the lenses "1 and 2" are mounted on alloy members "11" and "21", respectively, Figure 1).

Regarding claim 5, Ebinuma et al further discloses that the member comprises at least a portion of an objective housing (Sections 50-55, wherein the lens structure of Figure 1 is held within an exposure device and therefore lens "1" is an objective lens, Figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebinuma et al in view of Hanada et al.

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Regarding claims 6-8, Ebinuma et al discloses a holding device as disclosed above, but does not specifically disclose that the silicon content in the aluminum material is more than 40% (and therefore also more than 15%) by weight or that the thermal expansion coefficient is less than $24 * 10^{-6}K^{-1}$ at a density of less than $7.5 g/cm^3$. Hanada et al teaches of a holding device wherein a base is made of a silicon-containing aluminum alloy wherein the silicon content in the aluminum material is more than 40% (and therefore also more than 15%) by weight (Column 3, lines 41-68) and that the thermal expansion coefficient is less than $24 * 10^{-6}K^{-1}$ at a density of less than $7.5 g/cm^3$ (Column 3, lines 53-62 and Table 1, Column 8) for the purpose of providing a lightweight member with excellent machinability and reliability in welding (Column 3, lines 24-43). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the holding device of Ebinuma et al to further include the silicon content in the aluminum material is more than 40% (and therefore also more than 15%) by weight or that the thermal expansion coefficient is less than $24 * 10^{-6}K^{-1}$ at a density of less than $7.5 g/cm^3$. Hanada et al teaches of a holding device wherein a base is made of a silicon-containing aluminum alloy wherein the silicon content in the aluminum material is more than 40% (and therefore also more than 15%) by weight and that the thermal expansion coefficient is less than $24 * 10^{-6}K^{-1}$ at a density of less than $7.5 g/cm^3$ for the purpose of providing a lightweight member with excellent machinability and reliability in welding.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ebinuma et al in view of Partynski et al.

Regarding claim 9, Ebinuma et al discloses a holding device as disclosed above, but does not specifically disclose that the member comprises a part of an aerial picture camera. Partynski

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et al teaches of an optical element holder used in an aerial picture camera (Column 10, lines 39-65, wherein the optical system "50" is mounted to the camera housing, Figures 3-4) for the purpose of generating frames of imagery of a scene of interest (Column 13, line 64-Column 14, line 28). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the holding device of Ebinuma et al to further include the member comprising a part of an aerial picture camera since Partynski et al teaches of an optical element holder used in an aerial picture camera for the purpose of generating frames of imagery of a scene of interest.

Conclusion

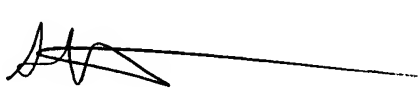

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Daiber and Shimoji are cited because they disclose optical element mounts made of silicon-containing aluminum materials.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T Stultz whose telephone number is (571) 272-2339. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jessica Stultz
Patent Examiner
AU 2873
June 4, 2004



Georgia Epps
Supervisory Patent Examiner
Technology Center 2800